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Plant Health  
Inspection  
Service



# **Mediterranean Fruit Fly Cooperative Eradication Program**

**Santa Monica, Los Angeles  
County, California**

**Environmental Assessment,  
November 2009**

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**Santa Monica, Los Angeles County,  
California**

**Environmental Assessment,  
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**CAUTION:** Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife—if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers.

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# I. Need for the Proposal

The Mediterranean fruit fly or Medfly, *Ceratitidis capitata* (Wiedemann), is a major pest of agriculture throughout many parts of the world. Because of its wide host range (over 300 species of fruits and vegetables) and its potential for damage, the Medfly represents a serious threat to U.S. agriculture. Although it has been introduced intermittently to the U.S. mainland since its first introduction in 1929, successful eradication programs have prevented it from becoming a permanent pest in the conterminous United States.

An establishment of Medfly would be disastrous to agricultural production in California and the United States. Although established on the Hawaiian Islands, the unchecked presence of Medfly on the U.S. mainland would result in widespread destruction of crops, such as apricot, avocado, grapefruit, nectarine, orange, peach, and cherry. Commercial crops, as well as home production of host fruits, would suffer if Medfly were allowed to become established. Fruit that has been attacked by Medfly is unfit to eat because the Medfly larvae tunnel through the fleshy part of the fruit, damaging the fruit and subjecting it to decay from bacteria and fungi.

On October 28, 2009, two mated and one unmated female Medflies were collected in a McPhail trap located in an orange tree on Warwick Avenue in Santa Monica, Los Angeles County, California (CDFA, 2009a). Confirmation of this finding has triggered Federal involvement in response to this outbreak. The area surrounding the infestation is a mixture of developed urban and residential districts and municipal parkland.

Although Medfly is not known to be established in California, many host plant species are grown in Los Angeles County, which increases the potential environmental impact of the Santa Monica detections. This Medfly infestation represents a major threat to the agriculture and environment of California and other U.S. mainland States. The U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) and the California Department of Food and Agriculture (CDFA) are proposing a cooperative program to eradicate the Medfly infestation and prevent the spread of Medfly to noninfested areas of the United States.

APHIS' authority for cooperation in the program is based upon the Plant Protection Act (Title 4 of the Agricultural Risk Protection Act of 2000), which authorizes the Secretary of Agriculture to carry out operations to eradicate insect pests, and to use emergency measures to prevent the dissemination of plant pests new to, or not widely distributed throughout, the United States.

Since 1984, APHIS has cooperated with State departments of agriculture on a number of successful Medfly eradication programs. One recent example is the Mediterranean Fruit Fly Cooperative Eradication Program conducted with the CDFA in El Cajon, San Diego County, California (USDA-APHIS, 2008).

This site-specific environmental assessment (EA) analyzes the environmental consequences of alternatives which have been considered for Medfly eradication, and considers, from a site-specific perspective, environmental issues relevant to this particular program. Alternatives for Medfly eradication have been discussed and analyzed comprehensively within the Fruit Fly Cooperative Control Program, Final Environmental Impact Statement—2001 (FF EIS) which is incorporated by reference and summarized within this EA. The eradication measures being considered for this program have been discussed and analyzed comprehensively within the fruit fly chemical risk assessments (USDA-APHIS, 1998a, and 1998b) and risk assessments for spinosad (USDA-APHIS, 1999a, 1999b, and 2003). Those documents are also incorporated by reference and summarized within this EA.

## **II. Alternatives**

Alternatives considered for this proposed program include (1) no action, (2) quarantine and commodity certification, and (3) eradication using an integrated pest management (IPM) approach. Component techniques of eradication include the use of chemical pesticides to facilitate the timely elimination of the current Medfly infestation.

### **A. No Action**

The no action alternative would result in no Federal effort being made to eradicate the Medfly or restrict its expansion from the infested area. In the absence of a Federal effort, quarantine and eradication would be left to State government, grower groups, and individuals. (Please visit the CDFA website at

[http://www.cdfa.ca.gov/phpps/pdep/treatment/medfly\\_treatment.html](http://www.cdfa.ca.gov/phpps/pdep/treatment/medfly_treatment.html) for details about the current California program for Medfly.)

Expansion of the infestation would be influenced by any pest control actions exerted over it, by the proximity of host plants, and by climatic conditions. "No treatment" might be the only choice with respect to some sensitive locations where Federally-listed threatened and endangered species or critical habitats occur; in such cases, lack of action could result in a continuing and expanding infestation. This alternative would continue the agency exclusionary practices to preclude outbreaks of Medfly in high risk areas, including the ongoing

use of sterile insect technique (SIT) as part of the preventive release program. An expansion of the infestation would likely result in substantial economic losses to growers in the United States and losses of U.S. export markets.

## **B. Quarantine and Commodity Certification**

This alternative combines a Federal quarantine with commodity treatment and certification, as stipulated under Title 7 of the Code of Federal Regulations (CFR), Part 301.32. Regulated commodities harvested within the quarantine area would be restricted to movement within that area unless treated with prescribed applications and certified for movement to outside the area. For a large infestation, intensive quarantine enforcement activities could be necessary including safeguarding of local fruit stands, mandatory baggage inspection at airports, and judicious use of road patrols and roadblocks. The quarantine actions of this alternative would result in a reduction of human-mediated movement of Medfly in host plant materials to areas outside the quarantined area; however, the infestation could remain established within the quarantine boundaries. Any Medfly eradication efforts would be managed by, and wholly under the control of, CDFA.

Interstate movement of regulated commodities would require issuance of a certificate, or limited permit, contingent upon commodity treatment or the grower or shipper complying with specific conditions designed to minimize pest risk and prevent the spread of the Medfly. Eradication methods that may be used in this alternative include (1) regulatory chemicals, (2) cold treatment, (3) vapor heat treatment, and (4) irradiation treatment. Regulatory chemical treatments may include fumigation with methyl bromide and bait spray with a mixture of protein hydrolysate bait and either spinosad or malathion, whose potential environmental impacts have been evaluated by the FF EIS (USDA-APHIS, 2001). Cold treatment, vapor heat treatment, or irradiation treatment of certain produce, as a requirement for certification and shipping, must be made in facilities that are inspected and approved by APHIS.

### **C. Eradication (Preferred Alternative)**

APHIS' preferred alternative for the Medfly program is eradication using an integrated pest management (IPM) approach. This alternative combines quarantine and commodity certification with eradication treatments. Eradication efforts for Medfly considered in the FF EIS (USDA-APHIS, 2001) include any or all of the following: chemical eradication, SIT, physical control, cultural control, and regulatory control. Under this alternative the Medfly population will be eradicated by trimedlure attractant and sticky trapping; any pesticide treatments will consist of ground-based applications of either spinosad bait or malathion formulations.

The current eradication zone involves a highly developed area of the City of Santa Monica (see appendix A). This zone covers approximately 18.9 square miles, encompassing the area defined by an approximate radius of 1.5 miles around each property on which an adult fly is trapped, or on which another life stage of Medfly is present (CDFA, 2009b; CDFA, 2009c). Three types of traps—ChamP, McPhail, and Multilure—will be placed over an 81-square mile area around each detection site in order to delimit the infestation and to determine the efficacy of treatments. All monitoring traps will be serviced for a period equal to three Medfly life cycles beyond the date of the last fly detection (CDFA, 2009b). Depending upon temperature variations, a life cycle (total time from egg to adult) may last from five weeks to five months (CDFA, 2008).

It has been determined that no non-pesticidal options available will effectively eradicate Medfly (CDFA, 2009b). The treatment plan for Medfly within this zone will, therefore, include ground applications of an organic formulation of spinosad bait to the foliage of all host trees and plants within a 200-meter radius of the detection site. Foliar applications are applied with hydraulic spray or hand-spray equipment. SIT will also be used on the Medfly population—the eradication area will be flooded with a continued release of sterile male Medflies in order to disrupt the reproduction cycle and so reduce the wild population. Larval surveys will be conducted up to 200 meters around any property where a Medfly is trapped. If Medfly larvae are discovered, fruit from the infested property and up to 100 meters around the find site will be removed and taken for disposal under regulatory compliance (CDFA, 2009b).

The public will be notified 24 hours prior to insecticidal treatment or physical removal of potentially infested fruit from their property, and provided with guidelines for post-treatment precautions and harvest protocols. Treatments will be repeated day for 7 to 14 days for one

Medfly life cycle. The eradication project will continue for three life cycles past the date of the last Medfly trapped (CDFA, 2009b).

### **III. Potential Environmental Consequences**

This EA analyzes the potential environmental consequences of alternatives that have been considered for Medfly eradication, and considers, from a site-specific perspective, environmental issues relevant to this particular program. The preferred alternative, eradication, would involve an IPM approach that may use any or a combination of the following: (1) no action, (2) quarantine, (3) regulatory chemical application (fumigation, soil treatment, and bait spray application), (4) eradication chemical applications (protein bait spray and/or soil treatment), (5) cold treatment, (6) vapor heat treatment, and (7) irradiation treatment. The capability of an adult Medfly to fly distances in excess of 40 miles makes it possible for commercial host-plant growing areas outside the eradication zone to become infested. Therefore, the regulatory treatment methods used for movement of commercial produce are covered in the event that the eradication zone should expand to include groves or orchards.

Alternatives for Medfly eradication have been discussed and analyzed comprehensively within the FF EIS (USDA-APHIS, 2001). The eradication measures being considered for this site-specific program—surveillance trapping, spinosad bait or malathion application, removal of fruit from potentially infested properties, and sterile insect release—have been analyzed comprehensively within the fruit fly chemical risk assessments (USDA-APHIS, 1998a, and 1998b) and risk assessments for spinosad (USDA-APHIS, 1999a, 1999b, and 2003). These documents are incorporated by reference and summarized within this EA.

This area's site-specific characteristics were considered with respect to the program's potential to affect (a) human health, (b) nontarget species (including threatened and endangered species), and (c) environmental quality. In addition, potentially sensitive areas have been identified, considered, and accommodated through special selection of eradication methods and use of specific mitigation measures. Further analysis will be required regarding any expansion of the current eradication zone.

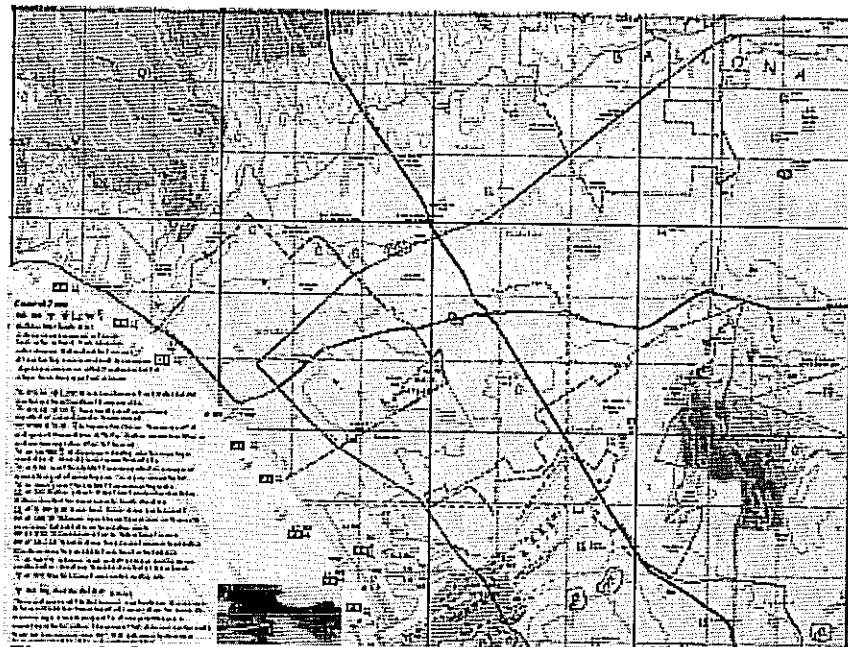
The City of Santa Monica is located in Southern California in a long, shallow valley surrounded by rocky coastal mountains. Santa Monica is comprised of 8.3 square miles of highly developed urban commercial and residential districts. The city is situated on the west



side of Los Angeles County, about 16 miles from downtown Los Angeles, near the intersection of Pacific Coast Highway and Interstate Highway 10. It is bordered by the City of Los Angeles on the north, east and south, and by the Pacific Ocean on the west. The climate is mild, with an annual average temperature 68 °F. Air quality is consistently good in the coastal district that surrounds the city. The population in Santa Monica for 2008 was estimated at 91,439, an increase of 8.7% over the 2000 Census data which calculated a population of over 10,000 persons per square mile (CSM, 2008).

The area of Santa Monica around the Medfly detection site contains commercial and residential districts. City parks and recreation centers, golf courses and country clubs dot the surrounding neighbourhood. The Santa Monica Municipal Airport is less than a mile away to the southeast. The Santa Monica Mountains to the north, the Pacific seashore to the west, and the Ballona Wetlands to the southeast are within three miles of the site.

The City of Santa Monica obtains irrigation and drinking water from the California State Water Project, the Colorado River, and local groundwater (WEF, 2006). The city occupies the coastal edge of the Ballona Watershed, which is part of the larger Santa Monica Bay watershed (see figure 1). Rainwater drains through Ballona Creek to Santa Monica Bay and the Pacific Ocean. Urban and agricultural runoff are two of the major activities affecting this watershed.



**Figure 1. Detail of the portion of the Ballona Watershed containing the Santa Monica Medfly detection site.**

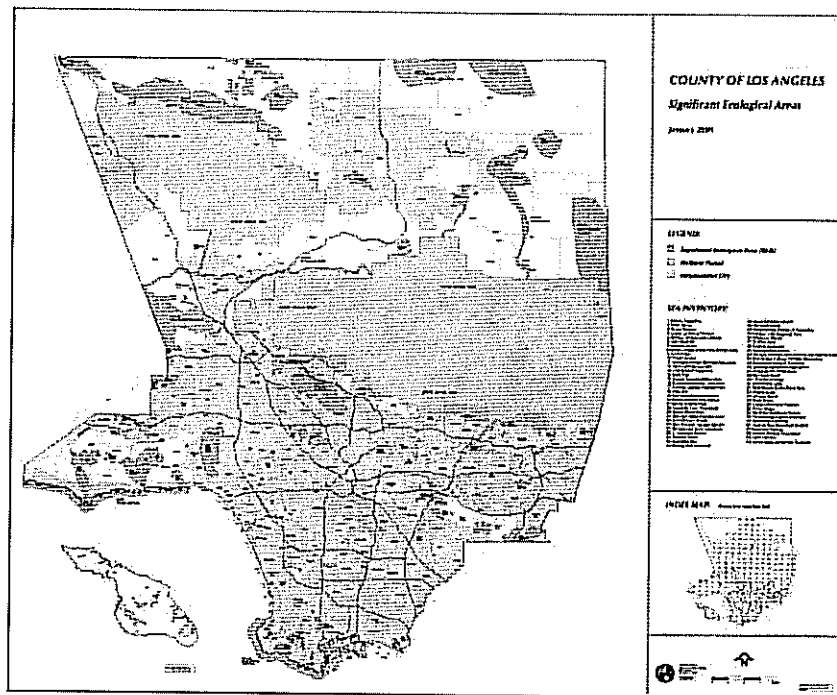
Source: CSM, 2004

Santa Monica's water system serves approximately 90,000 residential and business customers. The City operates and maintains three major pumping plants, twelve water wells, a softening and filtering plant for locally produced water, and four reservoirs which in total can store 40 million gallons of water (CSM, 2008). Treated Santa Monica tap water currently meets or exceeds California State and Federal health standards. City wells and imported surface water supplies were assessed between 2000 and 2002, and were determined to be contaminated or vulnerable to contamination from such sources as stormwater runoff, sewage, and agricultural and industrial waste. Santa Monica residents and business owners are expected to help protect water quality by controlling what is released into the city storm drains and water table (CSM, 2008) .

Urban runoff flows directly into local waters, picking up trash, dirt, chemicals, and other contaminants along the way. The preferred alternative calls for ground-based spray applications to host plants in developed residential and business districts of Santa Monica. As an added protection to existing municipal water treatment, standard mitigation measures will be applied to protect marine and freshwater resources, as discussed in section C, Environmental Quality.

Over 4.7 million people visit the City each year from outside Los Angeles County for pleasure, vacation, or business. Residents and visitors to Santa Monica beaches and waterways, recreation centers, parks and country clubs participate in numerous outdoor activities including golf, swimming, boating, fishing, hiking, biking, camping and picnicking. The Santa Monica Aquarium is home to dozens of species of animals and plants of the Santa Monica Bay (CSM, 2008). The city is rich in historical sites, cultural venues, shopping districts and other public attractions.

In 1994, the City of Santa Monica adopted the Sustainable City Program, a comprehensive strategy for the city and surrounding community which encourages stewardship of natural resources, establishes targets and goals for measuring progress towards achieving a sustainable community and provides the decision making framework for evaluating the long-term environmental, economic and social impacts of City policies, programs and operations. Figure 2 shows boundaries established in 2001 around significant ecological areas and national forest. The Office of Sustainability and the Environment is responsible for developing and implementing this program through direct services and coordinating the environmental aspects of activities citywide (CSM, 2008).



**Figure 2. Los Angeles County Ecological Map (under revision).**  
Source: Los Angeles County, 2001

## A. Human Health

No adverse effects on human health are expected to result from the program use of SIT, sticky traps, or trimedlure (FF EIS, 2001; EPA, 2008). The principal concerns for human health identified in the FF EIS are related to the potential program uses of the chemical pesticides: spinosad bait, malathion, and methyl bromide (a fumigant) (USDA-APHIS, 2001). Three major factors influence the human health risk associated with pesticide use—their exposure to humans, their toxicity to humans, and the fate of the pesticides in the environment. Each of the program pesticides is known to be toxic to humans; however, exposure to the pesticides is likely to be minimal owing to program use patterns.

The Santa Monica eradication program will employ surveillance trapping, ground-based applications of spinosad bait, and SIT. Potential exposure is low for the spinosad bait to be used in this eradication program because treatments are limited to ground-based applications to host plants. Most commercial applications will be applied to groves where exposure to the general public is unlikely. The analyses and data of the EIS and human health risk assessments indicate that exposures to pesticide from normal program operations are not expected to result in substantial adverse human health effects. (Refer to the FF EIS (USDA-APHIS, 2001) and the human health risk assessments (USDA-APHIS, 1999a, and 1998a) for more

detailed information relative to human health risk.) No adverse impacts to human health are expected to occur from these actions, if executed properly and in accordance with label instructions.

Another mitigation measure that will further minimize exposure of humans to program pesticides is the requirement for public notification. Information concerning the Santa Monica Medfly eradication project will consist of press releases to the general public. Either the county agricultural commissioner or the public information officer will serve as the primary contact to the media. Any resident whose property will be treated will be notified in writing at least 24 hours prior to treatment. Following the treatment, notices are left with homeowners detailing precautions to take, and post-harvest intervals applicable to any fruit on the property.

In general, a well-coordinated eradication program using IPM technologies results in the least usage of chemical pesticides overall, and the least potential to adversely affect human health. The no action alternative or the quarantine and commodity certification alternative would not eliminate the Medfly as readily or as effectively as the eradication alternative. Over a protracted time period, there would likely be broader, more widespread use of pesticides by homeowners and commercial growers, with correspondingly greater potential for adverse impacts to human health.

## **B. Other Considerations**

Potential environmental impacts of implementing the preferred alternative have been considered regarding historical and archeological sites in the Santa Monica region. No adverse effects are anticipated as a result of the surveillance trapping, SIT, or spinosad spray applications.

Some executive orders, such as Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks, and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations, as well as departmental and/or agency directives call for special environmental reviews in certain circumstances. No circumstance that would trigger the need for special environmental reviews is involved in implementing the preferred alternative considered in this document. The proposed program does not pose any disproportionate adverse effects to children, minority populations, or low-income populations over those effects to the general population.

Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," was issued to ensure that there would be

“meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications....”

There are no Federally recognized tribal lands within the eradication zone, and no expected impacts to tribal property from implementation of the preferred alternative.

The preferred alternative for Santa Monica currently requires quarantine or treatment of commodities and premises only for those producers who decide to sell their produce outside the eradication zone. Should future detections of Medfly warrant expansion of the current eradication zone into Native American lands, program officials will initiate consultation with the governing tribal authorities before undertaking further action.

### **C. Nontarget Species**

The principal concerns for nontarget species, including threatened and endangered species, also relate to the program use of pesticides. Paralleling human health risk, the risk to nontarget species is related to the pesticides' exposure to nontarget species, toxicity to the nontarget species, and fate in the environment. All of the program pesticides are highly toxic to invertebrates; however, the likelihood of exposure (and thus, impact) varies a great deal with the use pattern. Current eradication activities are limited to ground-based, foliar applications of spinosad bait to host plants and the use of SIT to control wild Medfly populations. The spinosad treatments target Medfly host plants in a manner that minimizes potential exposure and associated risks to nontarget species. The bait applications attract only a small number of invertebrate species other than Medfly. The release of sterile Medflies over the eradication zone will occur after the spinosad treatment has reduced the target Medfly population and thus lessened the availability of sexually mature female Medflies. SIT is expected to have no adverse effect on nontarget species (Refer to the FF EIS (USDA-APHIS, 2001) and its nontarget risk assessments (USDA-APHIS, 2003, 1999b, and 1998b) for more information on risks to all classes of nontarget species.)

A well-coordinated eradication program using IPM technologies (the preferred alternative) generally results in the least use of chemical pesticides overall, with minimal adverse impacts to nontarget species. The no action alternative and the quarantine and commodity certification alternative are less effective at eliminating Medfly, and are likely to result in broader and more widespread use of pesticides by homeowners and commercial growers, with correspondingly greater potential for adverse impact to the human environment.

The Santa Monica eradication zone was considered with respect to special characteristics that could influence the implementation of program operations. The eradication zone consists of developed residential and urban space, and program actions undertaken in these areas are expected to have no adverse affect on non-target species and habitats.

Section 7 of the Endangered Species Act and its implementing regulations govern consultation with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) to ensure that proposed actions are not likely to jeopardize the continued existence of threatened or endangered species, or result in the destruction or adverse modification of critical habitat. APHIS has reviewed the eradication zone boundaries and has determined that no Federally listed species and/or critical habitat (aka, listed resources) are present in the eradication zone.

The program will not apply pesticides to undeveloped areas of native vegetation, or areas where endangered species or natural habitats exist. All pesticide treatments will be applied to residential properties and within urban developments (CDFA, 2009b). Precautions, per standard program protocol, will be taken to avoid runoff. In the event of additional fruit fly detections or the need to expand the eradication zone, APHIS, in cooperation with CDFA, will consult with FWS and NMFS as necessary.

#### **D. Environmental Quality**

The principal environmental quality concerns are for the protection of air quality, water quality, and the minimization of the potential for environmental contamination. In relation to preserving environmental quality, program pesticides remain the major concern for the public and the program. Although program pesticide use is limited, especially in comparison to other agricultural pesticide use, the proposed action would result in a controlled release of chemicals into the environment. The fate of those chemicals varies with respect to the environmental component (air, water, or other substrate) and its characteristics (temperature, pH, dilution, etc.). The half-life of malathion in soil or on foliage ranges from 1 to 6 days; in water, from 6 to 18 days. The half-life of spinosad ranges from 8 to 10 days in soil, up to 2 days in water, and residues on plants persist for only a few hours. Effects from residues of individual treatments are no longer detectable in environmental substrates within a few weeks of application. (Refer to the FF EIS (USDA-APHIS, 2001) and the spinosad risk assessment (USDA-APHIS, 2003) for a more detailed description of the pesticide's environmental fate.)

Finally, the program has been considered with respect to its potential to cause cumulative impacts on the human environment. APHIS has considered implementation of the preferred alternative in the context of other pest insect eradication and quarantine projects in California. As of November 4, 2009 there are five eradication zones designated for Medfly in the State of California: Fallbrook, Mira Mesa, Imperial Beach (all in San Diego County), and Santa Monica (Los Angeles County). There is no double exposure or cumulative impact at present.

The treatments for overlapping eradication programs in California target different insects and do not affect the same non-target organisms. Additional eradication zones in place at the time of preparation of this EA have been designed to target:

- 1 White Striped fruit fly outbreak in Los Angeles County
- 1 Oriental fruit fly outbreak in Los Angeles County
- Asian citrus psyllid outbreaks in 5 CA counties including Los Angeles County
- Light brown apple moth outbreaks in 16 CA counties including Los Angeles County

No significant cumulative impacts are anticipated as a consequence of the program or its use of component treatment measures. There have been no residual impacts from previous Federal and non-Federal actions targeting fruit fly infestations in the Santa Monica area; and there are no reasonably foreseeable future actions that could result in incremental increases in environmental effects. Based on APHIS' review of the context and intensity of the existing, ongoing, and potential future treatments, there will be no cumulative impacts to the human environment resulting from this program.

## **IV. Listing of Agencies Consulted**

California Department of Food and Agriculture  
Plant Health and Pest Prevention Services  
Pest Detection/Emergency Projects  
1220 - N Street  
Sacramento, California 95814

U.S. Department of Agriculture  
Animal and Plant Health Inspection Service  
Plant Protection and Quarantine  
Invasive Species and Pest Management  
4700 River Road, Unit 134  
Riverdale, MD 20737

U.S. Department of Agriculture  
Animal and Plant Health Inspection Service  
Policy and Program Development  
Environmental and Risk Analysis Services  
4700 River Road, Unit 149  
Riverdale, Maryland 20737

U.S. Department of the Interior  
Fish and Wildlife Service  
Carlsbad Field Office  
6010 Hidden Valley Road, Suite 101  
Carlsbad, CA 92011



## V. References Cited

- California Department of Food and Agriculture, 2008. Mediterranean Fruit Fly Fact Sheet. Last updated: 10/23/08. Available at <http://www.cdfa.ca.gov/phpps/factsheets/MedFlyFactSheet.pdf> Accessed on 10/29/09
- California Department of Food and Agriculture, 2009a. Plant Health and Pest Prevention Services. Pest and Damage Record. PDR Number 1443400. Collection date: October 28, 2009.
- California Department of Food and Agriculture, 2009b. Pest Detection/Emergency Projects. Proclamation of an eradication project. Mediterranean fruit fly. City of Santa Monica, Los Angeles County. October 30, 2009
- CDFA—See California Department of Food and Agriculture
- City of Santa Monica, 2004. City of Santa Monica, Office of Sustainability and the Environment Santa Monica and Ballona Watershed Map. April 19, 2004. Available at [http://www.lagreenmap.org/map\\_ballona.htm](http://www.lagreenmap.org/map_ballona.htm) Accessed on 11/4/09
- City of Santa Monica, 2008. City of Santa Monica, Economic Development Division, Economic and Demographic Profile: 2008-2009 Community Profile. August 11, 2008. Available at [http://www01.smgov.net/finance/budget/2008-09/AdoptedBudget/04\\_CommunityProfile.pdf](http://www01.smgov.net/finance/budget/2008-09/AdoptedBudget/04_CommunityProfile.pdf) Accessed on 11/4/09
- City of Santa Monica, 2009. City of Santa Monica, Environmental & Public Works Management, Water Division. Annual Water Quality Report: May 2009. Available at <http://www01.smgov.net/ewpm/utilities/csmwqr09-3.pdf> Accessed on 11/4/09
- CSM—See City of Santa Monica
- EPA—See U.S. Environmental Protection Agency
- FF EIS—See U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 2001.
- Los Angeles County, 2001. Los Angeles County, Department of Regional Planning. Map Catalog: T02 – Significant Ecological Areas (approved/adopted version) – Countywide. January 2001. Under revision. Available at <http://planning.lacounty.gov/gis/maps> Accessed on 11/4/09

USDA-APHIS—See U.S. Department of Agriculture, Animal and Plant Health Inspection Service

U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 2001. Fruit fly cooperative control program, final environmental impact statement—2001. USDA-APHIS, Riverdale, MD.

U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 1998a. Human health risk assessment for fruit fly cooperative control programs. USDA-APHIS, Riverdale, MD.

U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 2008. Mediterranean Fruit Fly Cooperative Eradication Program, Los Angeles County, California, environmental Assessment—November 2008. USDA-APHIS, Riverdale, MD.

U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 1998b. Nontarget species risk assessment for fruit fly cooperative control programs. USDA-APHIS, Riverdale, MD.

U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 1999a. Spinosad bait spray applications. Human health risk assessment, March 1999. USDA-APHIS, Riverdale, MD.

U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 1999b. Spinosad bait spray applications. Nontarget risk assessment, March 1999. USDA-APHIS, Riverdale, MD.

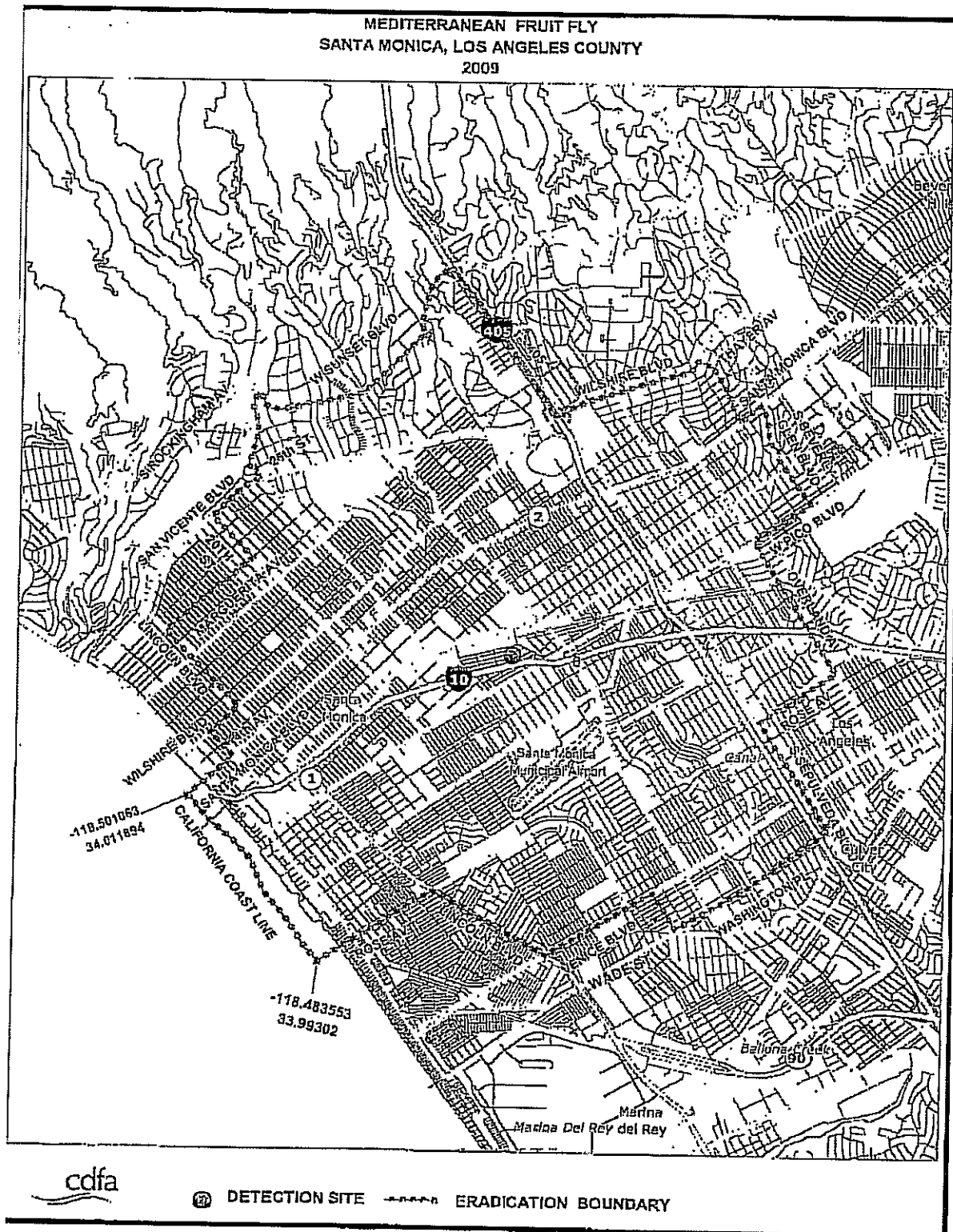
U.S. Department of Agriculture, Animal and Plant Health Inspection Service, 2003. Spinosad bait spray applications. Nontarget risk assessment, October, 2003. USDA-APHIS, Riverdale, MD.

U.S. Environmental Protection Agency, 2008. 4-(or 5-)Chloro-2-methylcyclohexane-carboxylic acid, 1, 1-dimethyl ester (112603) Fact Sheet. Issued: 6/01.

WEF—See Water Education Foundation

Water Education Foundation, 2006. Where does MY water come from? Los Angeles Region: Santa Monica. [Online] Available at <http://www.water-ed.org/watersources/community.asp?rid=9&cid=687> Accessed on 11/3/09

# Appendix A. Mediterranean Fruit Fly Detection Sites and Eradication Boundary—Santa Monica, Los Angeles County, California



**Finding of No Significant Impact  
for  
Mediterranean Fruit Fly Cooperative Eradication Program  
Santa Monica, Los Angeles County, California  
Environmental Assessment  
November 2009**

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) has prepared an environmental assessment (EA) that analyzes alternatives for control of the Mediterranean fruit fly (Medfly), *Ceratitis capitata* (Wiedemann), an exotic agricultural pest that has been found in areas of Santa Monica, Los Angeles County, California. The EA, incorporated by reference in this document, is available from—

USDA, APHIS, PPQ  
State Plant Health Director  
650 Capital Mall, Suite 6-400  
Sacramento, CA 95814

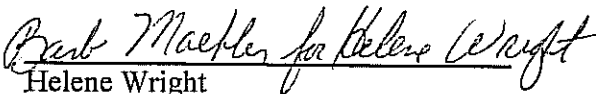
or

USDA, APHIS, PPQ  
Fruit Fly Exclusion and Detection Program  
4700 River Road, Unit 137  
Riverdale, MD 20737-1234

The EA for this program analyzed alternatives of (1) no action, (2) quarantine and commodity certification, and (3) eradication. Each of those alternatives was determined to have potential environmental consequences. APHIS selected eradication using an integrated pest management approach for the proposed program because of its capability to achieve eradication in a way that also reduces the magnitude of those potential environmental consequences.

APHIS has reviewed the eradication zone for the co-occurrence of listed species or critical habitat and determined that the proposed eradication treatments for Santa Monica will not affect any listed species or critical habitat. The eradication treatment area is wholly within developed urban and residential area and does not contain habitat for any listed species. Should the eradication zone expand, APHIS will review the expanded boundary to determine if any listed species or critical habitat may be affected. No further consultation is required at this time.

I find that implementation of the proposed program will not significantly impact the quality of the human environment. I have considered and based my finding of no significant impact on the quantitative and qualitative risk assessments of the proposed pesticides, and on my review of the program's operational characteristics. In addition, I find that the environmental process undertaken for this program is entirely consistent with the principles of environmental justice, as expressed in Executive Order 12898, and the protection of children, as expressed in Executive Order 13045. Lastly, because I have not found evidence of significant environmental impact associated with this proposed program, I further find that an environmental impact statement does not need to be prepared and that the program may proceed.

  
Helene Wright  
State Plant Health Director, California  
Animal and Plant Health Inspection Service  
Sacramento, CA

11/16/09  
Date